

Fig. 1

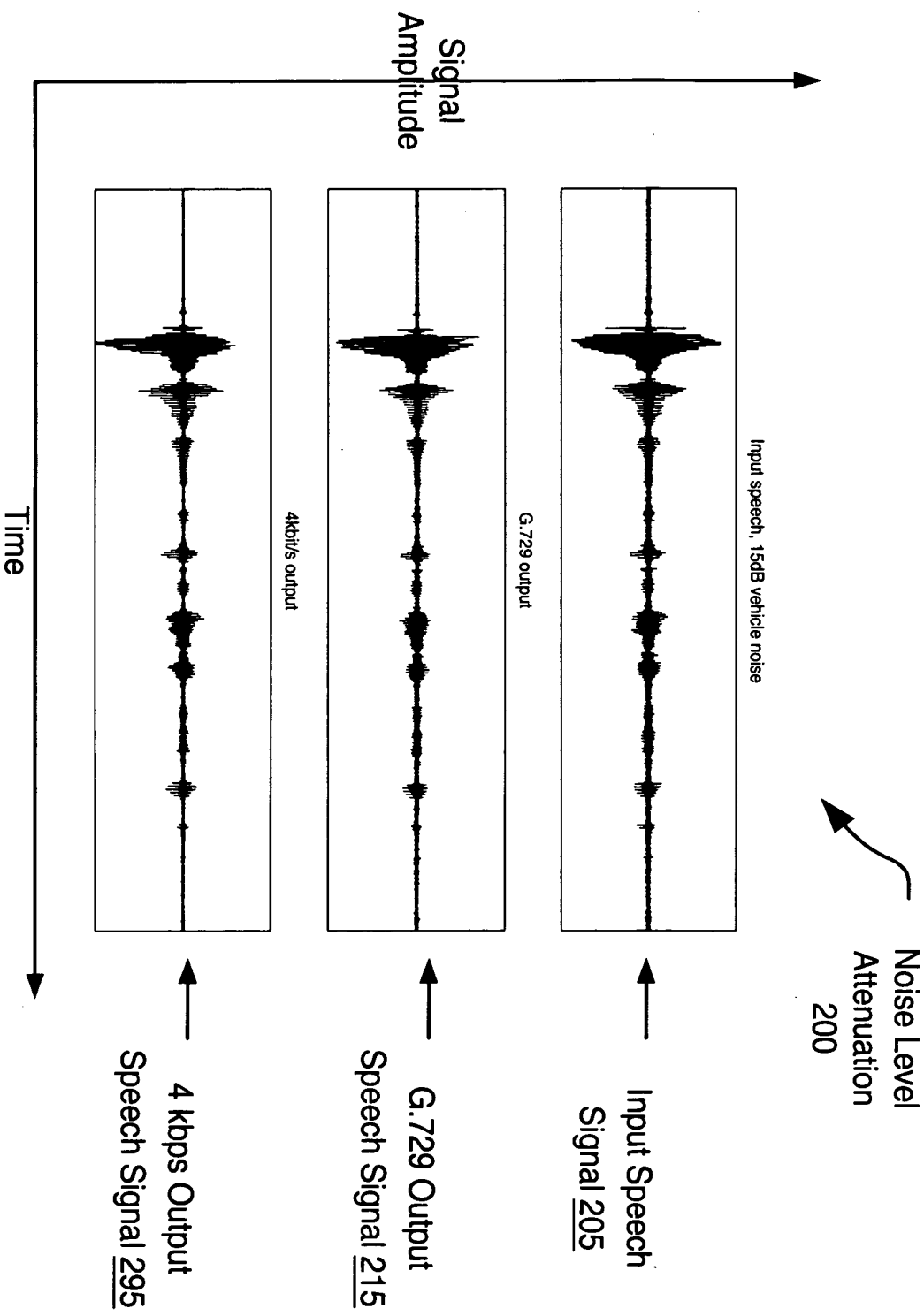


Fig. 2

FIG. 2 is a diagram illustrating the noise level attenuation process. The diagram shows three stacked waveform plots representing the input speech signal, the G.729 output signal, and the 4 kbps output signal. The vertical axis is labeled 'Signal Amplitude' and the horizontal axis is labeled 'Time'. The input speech signal (205) is shown with a high level of noise. The G.729 output signal (215) shows a significant reduction in noise. The 4 kbps output signal (295) shows further noise reduction. A vertical arrow on the right indicates the 'Noise Level Attenuation 200'.

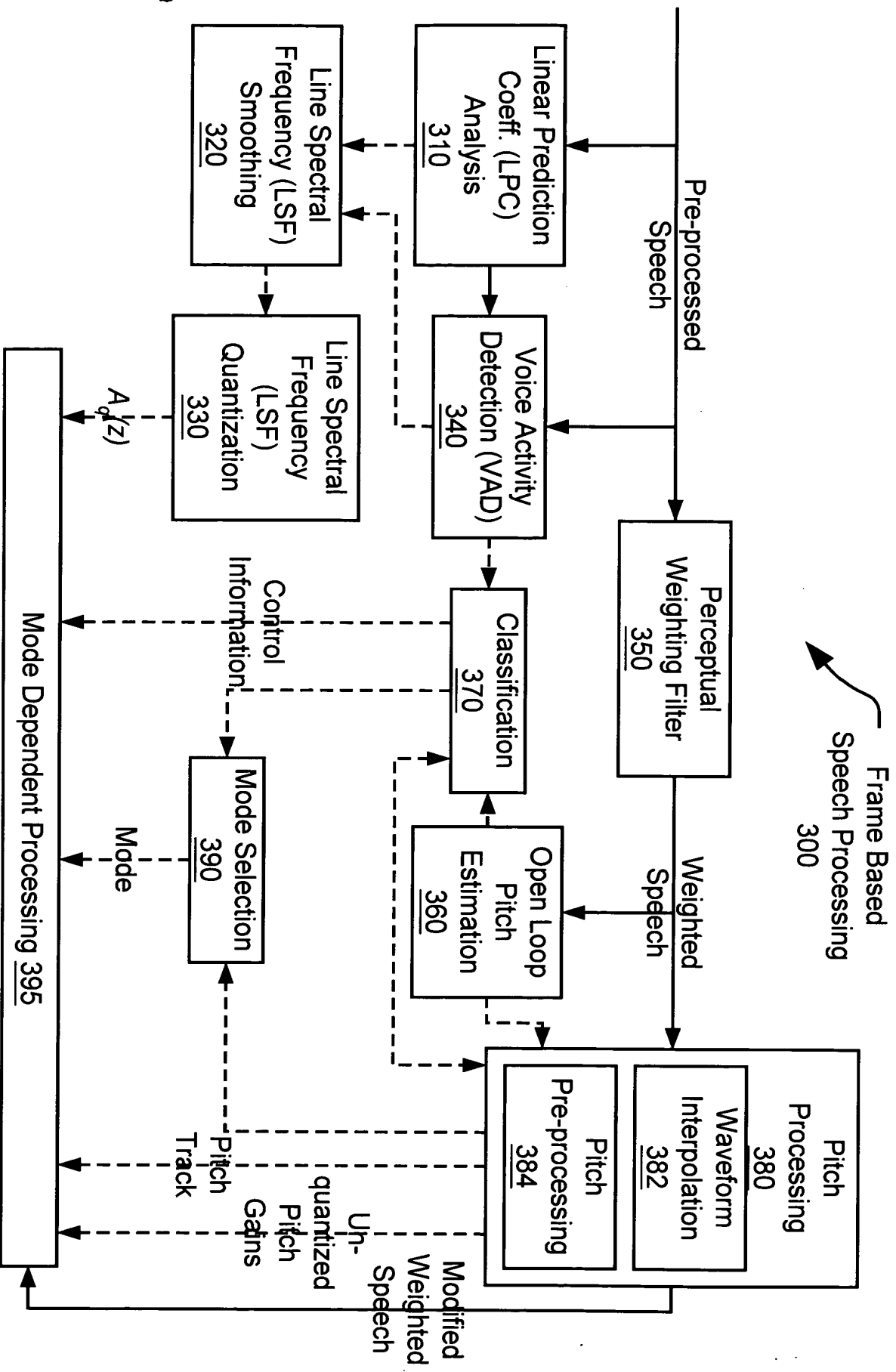


Fig. 3

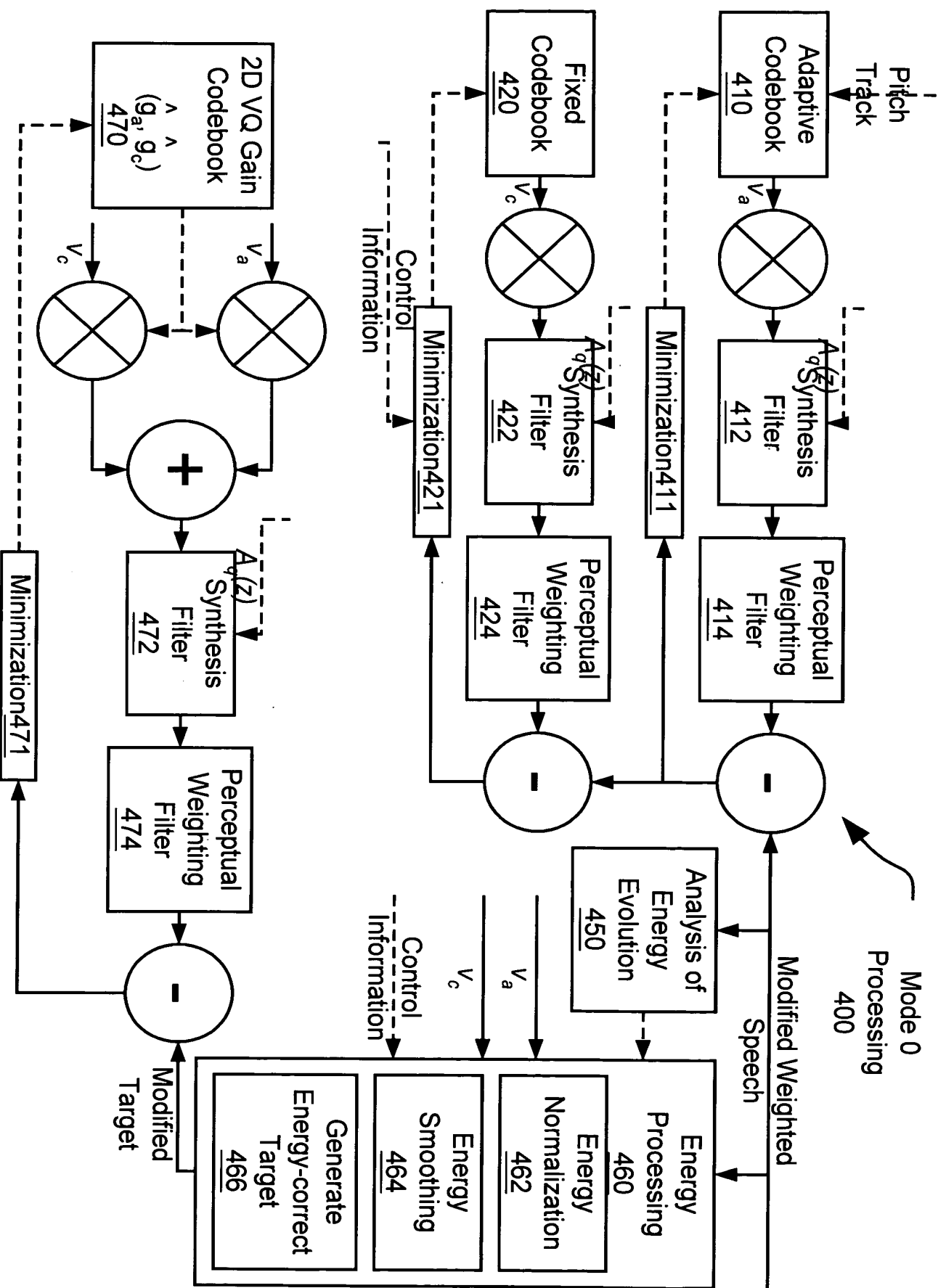


Fig. 4

Forward-Backward
Pitch Enhancement
500

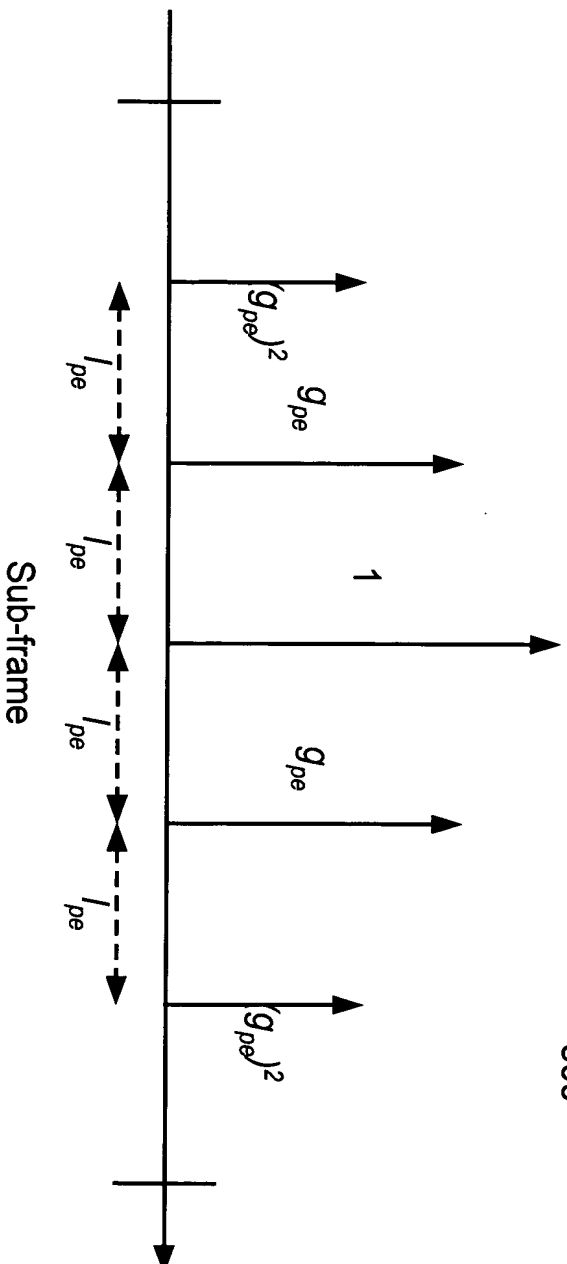
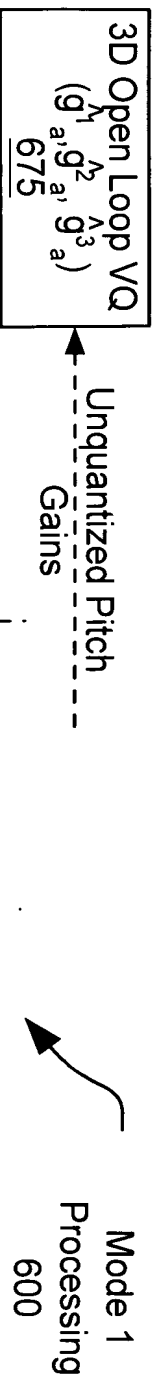


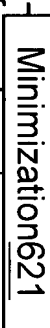
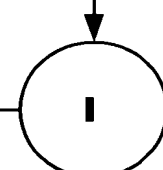
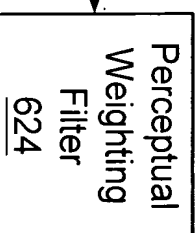
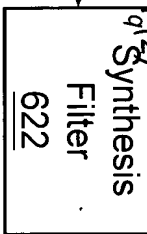
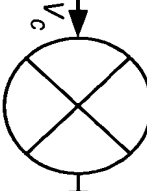
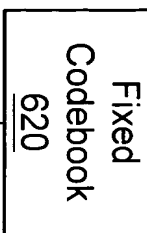
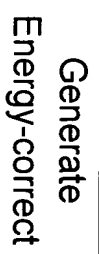
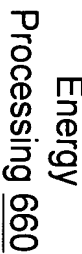
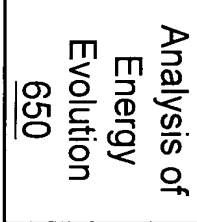
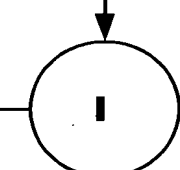
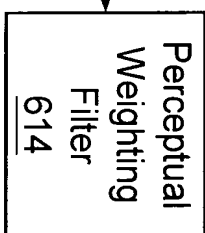
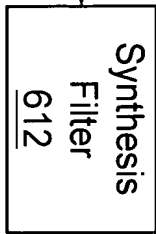
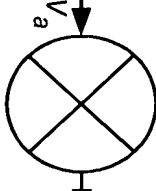
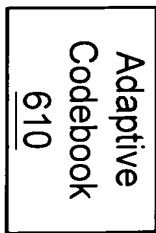
Fig. 5



Pitch

$A_q(z)$

Modified Weighted
 Speech



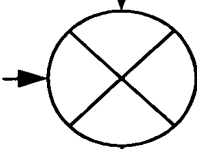
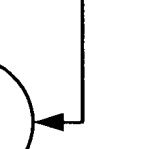
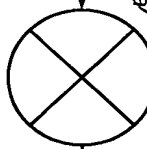
Control Information

Control
 Information

$\hat{g}_a^1, \hat{g}_a^2, \hat{g}_a^3$

(g_a^1, g_a^2, g_a^3)

(V_a^1, V_a^2, V_a^3)



(V_c^1, V_c^2, V_c^3)

Modified
 Target

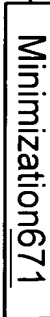
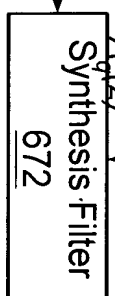
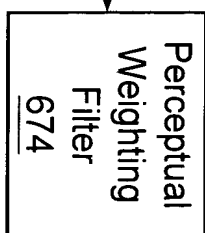
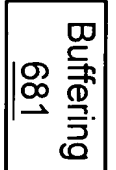


Fig. 6

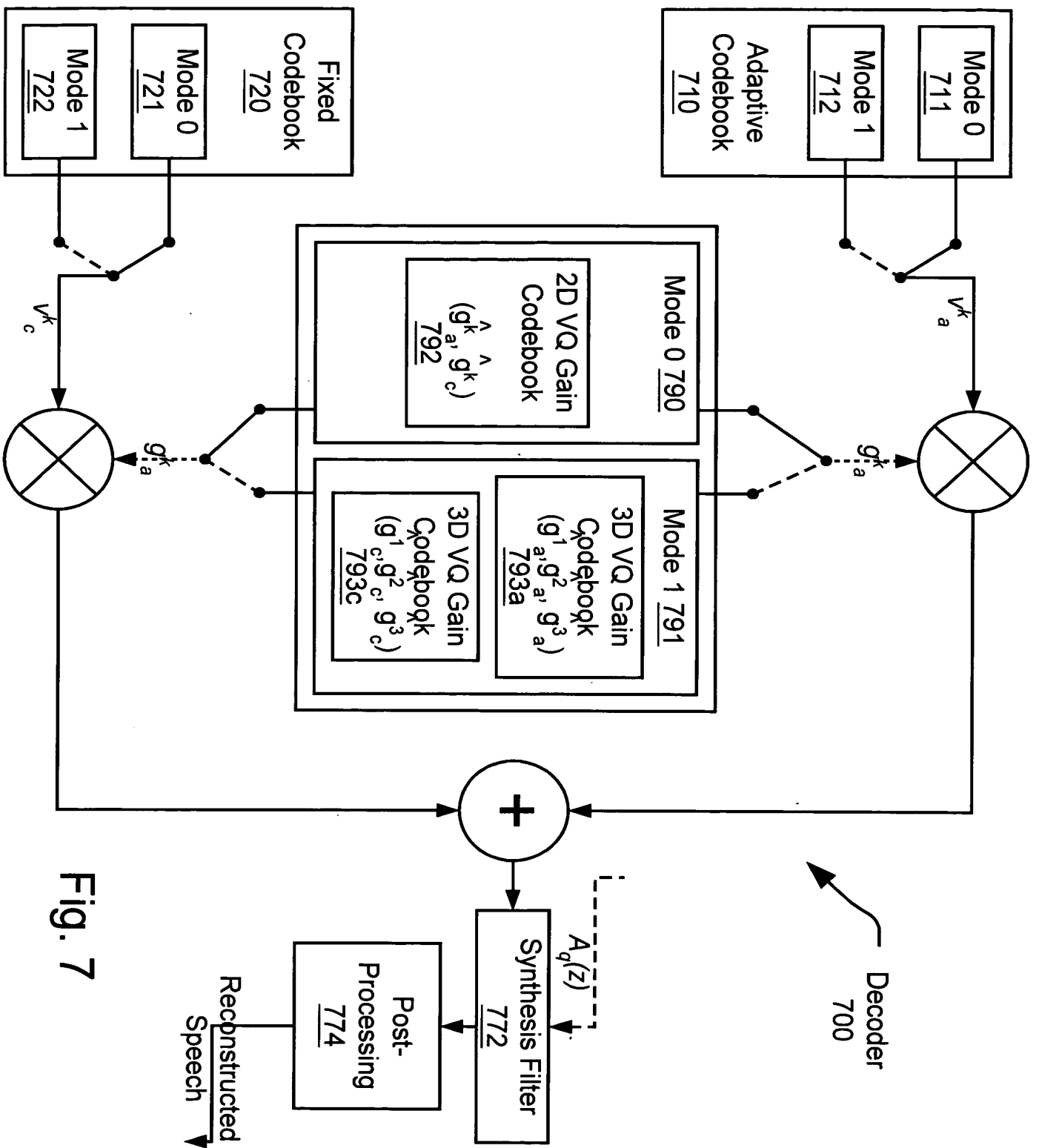


Fig. 7